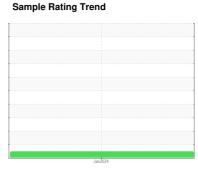


# **OIL ANALYSIS REPORT**



**NORMAL** 



Machine Id **834101** Component

**Natural Gas Engine** 

{not provided} (--- GAL)

### DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Metal levels are typical for a components first oil change.

### Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

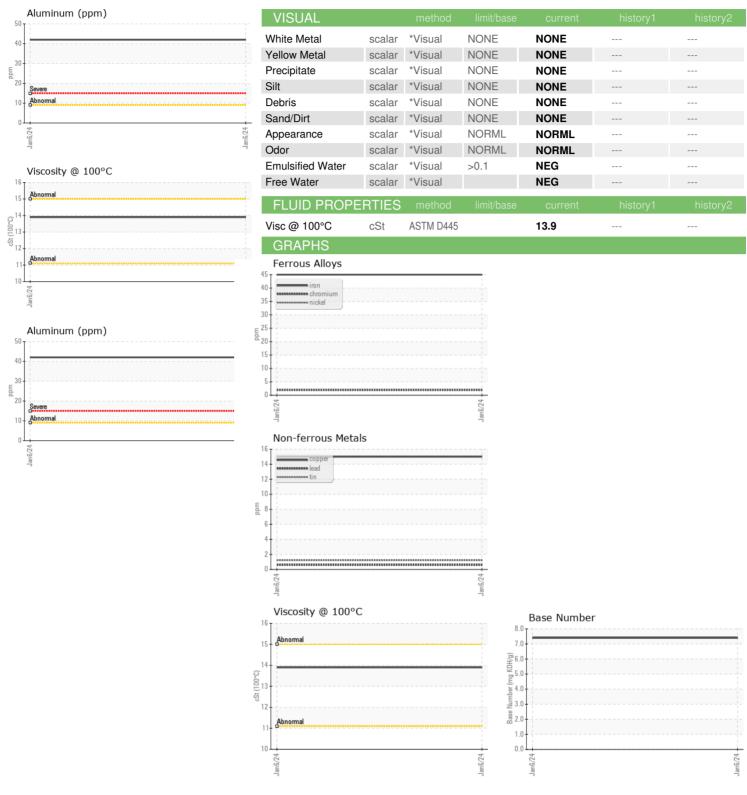
### **Fluid Condition**

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION   method   limit/base   current   history1   history2   Sample Number   Client Info   06 Jan 2024       Machine Age   Client Info   156           Mormal							
SAMPLE INFORMATION   method   limit/base   current   history1   history2					12024		
Sample Number   Client Info   GFL0108335	SAMPLE INFOR	MATION	method			history1	history2
Sample Date   Client Info   156		MATION		III III Dasc			
Machine Age	•		00				
Oil Age	•						
Contamped   Client Info   N/A   NORMAL   Sample Status   Normal   Normal   Sample Status   Normal   Normal   Sample Status   Normal   Sample Status   Sample	•						
NORMAL           NORMAL         NETWINDERS   NORMAL       NETWINDERS   NORMAL   NETWINDERS   NET	-						
CONTAMINATION         method         limit/base         current         history1         history2           Water         WC Method         >0.1         NEG             WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >50         45             Chromium         ppm         ASTM D5185m         >4         2             Nickel         ppm         ASTM D5185m         >4         2             Vicer         ppm         ASTM D5185m         >3         0             Aluminum         ppm         ASTM D5185m         >9         42            Lead         ppm         ASTM D5185m         >90         41	_		Client Info				
Water         WC Method         >0.1         NEG            WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >50         45             Chromium         ppm         ASTM D5185m         >4         2             Nickel         ppm         ASTM D5185m         >2         2             Silver         ppm         ASTM D5185m         >3         0             Aluminum         ppm         ASTM D5185m         >3         0             Aluminum         ppm         ASTM D5185m         >3         0             Lead         ppm         ASTM D5185m         9         42             Lead         ppm         ASTM D5185m         9         42             Lead         ppm         ASTM D5185m         93         1             Vanadium         ppm         ASTM D5185m         0         1	Sample Status				NORMAL		
WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >50         45	CONTAMINAT	ION	method	limit/base	current	history1	history2
Chromium	Water		WC Method	>0.1	NEG		
Chromium	WEAR METAL	.S	method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>50	45		
Nickel	Chromium		ASTM D5185m	>4	2		
ASTM D5185m   SIlver   Silve	Nickel		ASTM D5185m	>2	2		
Silver	Titanium		ASTM D5185m		<1		
Aluminum	Silver		ASTM D5185m	>3	0		
Copper	Aluminum		ASTM D5185m	>9	42		
Copper	Lead			>30	<1		
Tin	Copper		ASTM D5185m	>35	15		
Vanadium         ppm         ASTM D5185m         <1             Cadmium         ppm         ASTM D5185m         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         47             Barium         ppm         ASTM D5185m         3             Molybdenum         ppm         ASTM D5185m         61             Manganese         ppm         ASTM D5185m         778             Magnesium         ppm         ASTM D5185m         1160             Calcium         ppm         ASTM D5185m         907             Zinc         ppm         ASTM D5185m         907             Sulfur         ppm         ASTM D5185m         2409             CONTAMINANTS         method         limit/base         current         history1         history2           Solicon         ppm         ASTM D5185m         >20         123			ASTM D5185m	>4	1		
Cadmium         ppm         ASTM D5185m         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         47             Barium         ppm         ASTM D5185m         3             Molybdenum         ppm         ASTM D5185m         61             Manganese         ppm         ASTM D5185m         13             Magnesium         ppm         ASTM D5185m         778             Calcium         ppm         ASTM D5185m         1160             Phosphorus         ppm         ASTM D5185m         907             Zinc         ppm         ASTM D5185m         907             Sulfur         ppm         ASTM D5185m         2409             CONTAMINANTS         method         limit/base         current         history1         history2           Sodium         ppm         ASTM D5185m         >20         123 <td>Vanadium</td> <td></td> <td>ASTM D5185m</td> <td></td> <td>&lt;1</td> <td></td> <td></td>	Vanadium		ASTM D5185m		<1		
Boron	Cadmium				0		
Barium	ADDITIVES		method	limit/base	current	history1	history2
Barium	Boron	ppm	ASTM D5185m		47		
Manganese         ppm         ASTM D5185m         13             Magnesium         ppm         ASTM D5185m         778             Calcium         ppm         ASTM D5185m         1160             Phosphorus         ppm         ASTM D5185m         806             Zinc         ppm         ASTM D5185m         907             Sulfur         ppm         ASTM D5185m         2409             CONTAMINANTS         method         limit/base         current         history1         history2           Scilicon         ppm         ASTM D5185m         >+100         32             Scodium         ppm         ASTM D5185m         >20         123             Potassium         ppm         ASTM D5185m         >20         123             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         0             Sulfation         Abs/:mm	Barium	ppm	ASTM D5185m		3		
Magnesium         ppm         ASTM D5185m         778             Calcium         ppm         ASTM D5185m         1160             Phosphorus         ppm         ASTM D5185m         806             Zinc         ppm         ASTM D5185m         907             Sulfur         ppm         ASTM D5185m         2409             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         7             Sodium         ppm         ASTM D5185m         7             Potassium         ppm         ASTM D5185m         >20         123             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7624         >20         8.9             Sulfation         Abs/.1mm         *ASTM D7415         >30         20.7             FLUID DEGRADATION         <	Molybdenum	ppm	ASTM D5185m		61		
Calcium         ppm         ASTM D5185m         1160             Phosphorus         ppm         ASTM D5185m         806             Zinc         ppm         ASTM D5185m         907             Sulfur         ppm         ASTM D5185m         2409             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >+100         32             Sodium         ppm         ASTM D5185m         7             Potassium         ppm         ASTM D5185m         >20         123             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         0             Sulfation         Abs/.1mm         *ASTM D7415         >30         20.7             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidati	Manganese	ppm	ASTM D5185m		13		
Calcium         ppm         ASTM D5185m         1160             Phosphorus         ppm         ASTM D5185m         806             Zinc         ppm         ASTM D5185m         907             Sulfur         ppm         ASTM D5185m         2409             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >+100         32             Sodium         ppm         ASTM D5185m         7             Potassium         ppm         ASTM D5185m         >20         123             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         0             Sulfation         Abs/.1mm         *ASTM D7415         >30         20.7             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidati	•		ASTM D5185m		778		
Phosphorus         ppm         ASTM D5185m         806             Sulfur         ppm         ASTM D5185m         907             Sulfur         ppm         ASTM D5185m         2409             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >+100         32             Sodium         ppm         ASTM D5185m         7             Potassium         ppm         ASTM D5185m         >20         123             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         0             Sulfation         Abs/.1mm         *ASTM D7624         >20         8.9             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         17.9			ASTM D5185m		1160		
Sulfur   ppm   ASTM D5185m   907       Sulfur   ppm   ASTM D5185m   2409         Sulfur   ppm   ASTM D5185m   2409         Sulfucon   ppm   ASTM D5185m   >+100   32         Sodium   ppm   ASTM D5185m   7         Potassium   ppm   ASTM D5185m   >20   123         INFRA-RED   method   limit/base   current   history1   history2   Soot %   % "ASTM D7844   0       Sulfation   Abs/cm "ASTM D7624   >20   8.9       Sulfation   Abs/.1mm "ASTM D7415   >30   20.7       Sulfation   Abs/.1mm "ASTM D7414   >25   17.9             Sulfation   Abs/.1mm "ASTM D7414   >25   17.9	Phosphorus						
Sulfur         ppm         ASTM D5185m         2409             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >+100         32             Sodium         ppm         ASTM D5185m         7             Potassium         ppm         ASTM D5185m         >20         123             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         0             Nitration         Abs/cm         *ASTM D7624         >20         8.9             Sulfation         Abs/.1mm         *ASTM D7415         >30         20.7             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         17.9			ASTM D5185m				
Silicon         ppm         ASTM D5185m         >+100         32             Sodium         ppm         ASTM D5185m         7             Potassium         ppm         ASTM D5185m         >20         123             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         0             Nitration         Abs/cm         *ASTM D7624         >20         8.9             Sulfation         Abs/.1mm         *ASTM D7415         >30         20.7             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         17.9	Sulfur						
Sodium         ppm         ASTM D5185m         7             Potassium         ppm         ASTM D5185m         >20         123             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         0             Nitration         Abs/cm         *ASTM D7624         >20         8.9             Sulfation         Abs/.1mm         *ASTM D7415         >30         20.7             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         17.9	CONTAMINAN	ITS	method	limit/base	current	history1	history2
Potassium         ppm         ASTM D5185m         >20         123             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         0             Nitration         Abs/cm         *ASTM D7624         >20         8.9             Sulfation         Abs/.1mm         *ASTM D7415         >30         20.7             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         17.9	Silicon	ppm	ASTM D5185m	>+100	32		
INFRA-RED	Sodium	ppm	ASTM D5185m		7		
Soot %         %         *ASTM D7844         0             Nitration         Abs/cm         *ASTM D7624         >20         8.9             Sulfation         Abs/.1mm         *ASTM D7415         >30         20.7             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         17.9	Potassium	ppm	ASTM D5185m	>20	123		
Nitration         Abs/cm         *ASTM D7624         >20         8.9             Sulfation         Abs/.1mm         *ASTM D7415         >30         20.7             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         17.9	INFRA-RED		method	limit/base	current	history1	history2
Sulfation         Abs/.1mm         *ASTM D7415         >30         20.7             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         17.9	Soot %	%	*ASTM D7844		0		
Sulfation         Abs/.1mm         *ASTM D7415         >30         20.7             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         17.9	Nitration	Abs/cm	*ASTM D7624	>20	8.9		
Oxidation	Sulfation	Abs/.1mm	*ASTM D7415	>30			
	FLUID DEGRAI	DATION	method	limit/base	current	history1	history2
	Oxidation	Abs/.1mm	*ASTM D7414	>25	17.9		
	Base Number (BN)		ASTM D2896		7.4		



## **OIL ANALYSIS REPORT**







Laboratory Sample No. Lab Number Unique Number

: 06060082 : 10831464 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : GFL0108335 Recieved : 12 Jan 2024 Diagnosed : 16 Jan 2024

: Wes Davis Diagnostician

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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T:

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